Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of	)	
Advanced Telecommunications	)	
Capability to All Americans in a Reasonable	)	GN Docket No. 04-54
and Timely Fashion, and Possible Steps	)	
to Accelerate Such Deployment	)	
Pursuant to Section 706 of the	)	
Telecommunications Act of 1996	)	

COMMENTS OF SES AMERICOM, INC.

SES AMERICOM, Inc. ("SES AMERICOM"), by its attorneys, hereby submits these comments on the *Notice of Inquiry* (the "*NOI*") released by the Federal Communications Commission in the above-captioned proceeding.[1] In the *NOI*, the Commission requested comment on whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely manner, and what steps can be taken to accelerate such deployment.[2] This inquiry is particularly timely given President Bush's recently announced goal of "universal affordable access for broadband technology by the year 2007."[3]

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1 Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, *Notice of Inquiry*, GN Docket No. 04-54, FCC 04-55, rel. March 17, 2004 ("*NOI*"); *see also* Public Notice, DA 04-1046, April 16, 2004.

2 *NOI*, ¶ 10.

3 George W. Bush Delivers Remarks on Homeownership – News Event, Political Transcripts by Federal Document Clearing House, March 26, 2004, LEXIS, Nexis Library, Political Transcripts file.

I. INTRODUCTION

As the Commission noted in the *NOI*, advanced services already play a vital role in business and the economy, as well as education and medicine, and applications that require advanced telecommunication capability will continue to grow rapidly.[4] At the same time, the Commission also expressed concern about the rate and quality of deployment of such services to all Americans, including particularly those located in rural areas.[5]

As recently explained by Commission Chairman Powell, "there is one communications technology – satellite – that is capable of reaching each and every single American, in every spot of the country, no matter how rural or remotely located they might be."[6] In these comments, SES AMERICOM describes the critical role of satellite services in the deployment of broadband services, and outlines the steps it is taking to make such deployment a reality. As these comments make clear, SES AMERICOM is leading the satellite industry in investing substantial resources to make broadband satellite an affordable, high-quality service available to all Americans. But the satellite industry cannot achieve this critical goal alone, without assistance from concerned arms of the U.S. Government. Hence, in addition, SES AMERICOM addresses here an important question posed in the *NOI*: "[W]hat actions, if any, can be taken [by the Commission] to accelerate deployment?"[7]

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4 *NOI*, ¶¶ 2-5, 10.

5 *Id* , ¶ 30. *See also NOI* Statements of Commissioners Michael J. Copps and Jonathan S Adelstein, both noting that the United States ranked only 11th worldwide in broadband penetration in a recent ITU survey.

6 Remarks of FCC Chairman Michael Powell at the FCC Rural Satellite Forum, January 27, 2004, Washington, D.C., available at http://ftp.fcc gov/commissioners/powell/mkp_speeches_2004.html ("Powell Rural Satellite Forum Remarks"), at 1. Chairman Powell later noted that "story after story" at that Forum demonstrated that "satellites are providing basic and advanced services in rural and remote areas throughout our country." Remarks of FCC Chairman Michael Powell at the 2004 Satellite Leadership Dinner, March 2, 2004, Washington, D.C., available at http://ftp.fcc.gov/commissioners/powell/mkp_speeches_2004.html ("Powell Satellite Leadership Remarks"), at 4.

7 *NOI*, ¶ 10; *see also* ¶ 36.

II. DEPLOYMENT OF SATELLITE BROADBAND SERVICES IS CRITICAL TO ACHIEVING THE GOAL OF ADVANCED SERVICES TO ALL AMERICANS.

As the Commission has long acknowledged, the "last mile" connection is the critical link for rural Americans.[8] Current terrestrial, wire-based networks are either not broadband, or do not reach most rural Americans. Moreover, build-out of such systems is slow and costly in rural areas. Terrestrial wireless solutions can provide faster build-out, but are still inefficient in areas of low population density. Therefore, for economic reasons, rural America is unlikely to be well-served by terrestrial broadband systems.

Satellite solutions, however, can reach every corner of America with the same effort used to reach cities. Moreover, the delivery cost to serve a rural consumer is exactly the same as the cost to serve a city-dweller; a "bit" traveling by satellite costs the same whether it lands on a farm or in a city apartment. Only with satellite solutions will rural Americans have access to broadband and entertainment services at the same time, and for the same cost, as all other Americans. As Chairman Powell has remarked, "[t]he ubiquity of satellite signals has long held the potential to deliver advanced communications anywhere and everywhere in America."[9]

Even in cities, satellite solutions are an attractive "last mile" option. Delivery of video entertainment via satellite currently competes well with cable offerings, both in cities and rural areas. The same can be expected for two-way broadband services, particularly when bundled with entertainment packages, as with cable entertainment/cable modem offerings.

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8 *See, e.g.*, Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, *Third Report*, CC Docket No. 98-146, FCC 02-33, rel. February 6, 2002 (the "*Third Report*"). The *Third Report* focused attention on the last mile, noting that last mile facilities are often the missing link in communities that do not have access to advanced telecommunications capability, Appendix B at 3, and that last mile connectivity "appears to be where there is the greatest need for further investment." Appendix B at 1.

9 Powell Rural Satellite Forum Remarks at 1.

Historically, a drawback of satellite services has been the cost to the subscriber (wherever located), including both the cost of satellite time (a function of throughput on the satellite) and the cost of customer-premise equipment ("CPE"). As Chairman Powell has noted, satellite systems are costly and time-consuming to build, yet – like any good or service – the price points for these services are important factors.[10] However, industry-wide efforts, to which SES AMERICOM has contributed significantly, are changing this picture. Technological advancements are currently expected to more than double the number of subscribers that can be served from a single satellite transponder (to about 20,000), and this number is expected to more than triple (to about 30,000) in the near future, thereby dramatically reducing the cost per bit per subscriber. The cost of CPE (in the $500 range today) is expected to drop even farther in the next 12-18 months. Satellite delivery of broadband services is economically viable today, but will be much more affordable in the near future, with the added advantage of being able to serve customers on the same terms at every location in the United States.

III. SES AMERICOM IS COMMITTED TO DEVELOPING AND IMPLEMENTING SATELLITE-BASED BROADBAND SOLUTIONS.

SES AMERICOM is the largest supplier of satellite services in the United States. The company currently operates a fleet of 14 spacecraft in geosynchronous orbital positions, providing services throughout the Americas.[11] As a member of the SES GLOBAL family, SES

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10 Powell Satellite Leadership Remarks at 2, 4.

11 For most of its 25 years of operation (first as RCA American Communications, Inc., then as GE American Communications, Inc.), SES AMERICOM has provided service to broadcast and cable television programmers, as well as to the federal government and others. Commercial and educational television broadcasters use SES AMERICOM satellites both to distribute programming and for specialized satellite newsgathering services. SES AMERICOM established one of the first cable satellite "neighborhoods" more than 15 years ago, and today distributes cable TV programming for the major cable networks. Virtually every U.S. cable and DBS household receives some of its programming via the SES AMERICOM fleet. SES AMERICOM also has the largest satellite "neighborhood" for the U.S. radio programming industry. Through SES AMERICOM's wholly-owned subsidiary, AMERICOM Government Services, dozens of specialized satellite-based communication networks have been designed, installed, maintained and serviced by SES AMERICOM for governmental organizations as diverse as NASA, NOAA, and the U.S. Armed Forces, as well as for commercial customers such as the publishing

AMERICOM is able to provide end-to-end telecommunications solutions to any region in the world.[12]

SES AMERICOM believes in satellite broadband, and has made a strong commitment to develop satellite technology and deploy systems specifically designed for direct-to-home broadband applications. As the Commission is aware, over two years ago, in April 2002, SES AMERICOM announced a plan to provide a platform of satellite capacity – known as "AMERICOM2Home" – for others to offer a broad range of innovative services directly to consumers in the United States.[13] This platform will use both Fixed-Satellite Service ("FSS") and Direct Broadcast Satellite ("DBS") orbital locations and spectrum.

As part of this proposal, SES AMERICOM filed a request to offer satellite capacity for direct-to-home services in the United States from a DBS satellite licensed by the Government of Gibraltar at 105.5° West Longitude ("W.L.").[14] As discussed below, although this proposal complies with all of the Commission's procedural and substantive requirements for

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industry. The company has a long history of providing communications for the telephone industry, and, more recently, SES AMERICOM's satellites have been used for data communications, VSAT services, and Internet transmissions. In addition, SES AMERICOM supplies satellite capacity for the Qualcomm OmniTrax system, which employs mobile antennas to track trucking fleets, for example. As the demand increases for high-quality telecommunications, SES AMERICOM's technical experts continue to develop innovative and cost-effective solutions to address customers' evolving needs.

12 SES GLOBAL owns SES ASTRA, a leading European satellite provider. SES ASTRA provides transponder capacity and associated communications services through which television companies make available free and subscription television programming, as well as other services, to the general public and closed user groups across the European continent.

13 *See* SES AMERICOM Files FCC Petition for New Satellite Television and Internet Platform, April 25, 2002, http://www.ses-americom.com/media/25_apr_02.html (the "AMERICOM2Home Press Release"). SES AMERICOM, while providing FSS and DBS transponder capacity to third parties, will not itself offer any retail or consumer services. *Id.*

14 SES AMERICOM, Inc., Petition for Declaratory Ruling To Serve the U.S. Market Using BSS Spectrum from the 105.5° W.L. Orbital Location, SAT-PDR-20020425-00071, April 25, 2002 (the "SES AMERICOM Petition") *See* Section IV *infra*.

market entry by a foreign-licensed satellite, and is in the public interest, SES AMERICOM's request remains pending, over two years after it was filed. Nevertheless, SES AMERICOM remains committed to this project.

As another part of the AMERICOM2Home platform, SES AMERICOM will offer capacity for two-way Internet and broadband services via an SES AMERICOM satellite operating in the FSS Ku- and Ka-bands at 105° W.L., permitting integrated broadband/DBS service offerings.[15] From the perspective of the consumer, the integration of DBS television and satellite Internet services would be seamless, and would be accomplished using a *single consumer terminal* with two-way communications capabilities. This integration of services is important in making satellite delivery of entertainment and broadband services competitive with similarly-bundled terrestrially-delivered offerings.

In furtherance of this goal, SES AMERICOM announced last year a multi-year service agreement to provide satellite capacity to EchoStar Communications Corporation ("EchoStar") on a new Ku/Ka-band FSS hybrid satellite to be placed in the 105° W.L. orbital slot. EchoStar plans to use this FSS capacity to seek ways to offer a combination of satellite TV programming bundled with satellite-delivered, high-speed, Internet services.[16] SES AMERICOM is also devoting substantial resources, along with EchoStar, toward developing an enhanced broadband system that will compete with terrestrial-based systems in both performance and capital cost per subscriber.

The use of DBS frequencies at 105.5° W.L., in combination with the FSS frequencies, is critical to the AMERICOM2Home platform. Provision of integrated video/broadband service, received via a single dish, is currently constrained by the lack of

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15 *See* AMERICOM2Home Press Release; SES AMERICOM Petition at 2.

16 SES AMERICOM to Provide Satellite Capacity to EchoStar, March 26, 2003, http://www.ses-americom.com/media/03_26_03.html.

available DBS frequencies between 101° W.L. and 119° W.L. The SES AMERICOM-proposed DBS satellite at 105.5 W.L. will allow the nearby FSS Ku- and Ka-band slots to be used more efficiently, including for broadband services with automated installation procedures. Use of DBS and FSS slots in close proximity will permit single dish solutions that will lower the cost disadvantage of satellite broadband as compared to self-provisioning terrestrial systems.

SES AMERICOM has entered the broadband market in other ways as well. For example, SES AMERICOM recently announced an agreement to provide satellite capacity, via its WORLDSAT subsidiary, for the Connexion by Boeing system.[17] The Connexion system offers broadband connectivity to aircraft passengers. For this venture, a new satellite is being built by SES AMERICOM, featuring a customized Ku-band payload designed to address the unique requirements of broadband communications for, in this case, the transpacific traveler.

IV. THE FCC CAN ACCELERATE DEPLOYMENT OF BROADBAND SERVICES BY TAKING STEPS TO INCREASE SATELLITE ORBITAL AND SPECTRUM RESOURCES.

Satellite broadband systems require access to scarce orbital and frequency spectrum resources. Identifying and securing rights to such resources is one of the principal challenges facing any satellite provider. At present, the lack of authorization to use available spectrum is seriously delaying implementation of the AMERICOM2Home platform, which was originally scheduled to be deployed as early as this year.[18]

As noted above, a critical element of the AMERICOM2Home platform – capacity from a Gibraltar-licensed satellite at 105.5° W.L. – remains unsettled from a regulatory standpoint more than two years after SES AMERICOM first proposed its use. In accordance with Commission rules, SES AMERICOM filed with the Commission, in April 2002, a Petition

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17 SES AMERICOM Increases International Focus with WORLDSAT, January 15, 2004, http://www.ses-americom.com/media/2004/1_15_04 html.

18 *See* AMERICOM2Home Press Release at 2; SES AMERICOM Petition at 12.

requesting a declaratory ruling that it is in the public interest for SES AMERICOM to offer such capacity to third parties that will provide direct-to-home services to consumers in the United States and certain British Overseas Territories in the Caribbean.[19] The Petition demonstrated that the SES AMERICOM proposal fully satisfies all Commission rules and policies for market entry by a foreign-licensed satellite, and is ripe for grant.

At the same time, SES AMERICOM acknowledged that, pursuant to international procedures established for the subject frequencies, SES AMERICOM will need to coordinate its operations with those of operators in adjacent slots, which include the U.S. operators DIRECTV and EchoStar.[20] Each of these service providers operates satellites located 4.5° away from 105.5° W.L. orbital location proposed to be used by SES AMERICOM. Those coordination proceedings, under the auspices of the International Telecommunication Union, are underway.

Despite the fact that the SES AMERICOM proposal meets all Commission rules and policies, and international coordination is ongoing, DIRECTV has urged the Commission to initiate a rulemaking on operation of DBS satellites at reduced spacing.[21] As SES AMERICOM

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19 *See* SES AMERICOM Petition at 1-2. The Petition was placed on Public Notice, *see Public Notice*, Report No. SAT-00110, May 17, 2002, and a pleading cycle was concluded. *See* SES AMERICOM Consolidated Reply, SAT-PDR-20020425-00071, July 3, 2002 ("SES AMERICOM Consolidated Reply").

20 *See* SES AMERICOM Petition at 8-12; SES AMERICOM Consolidated Reply at i, 4-5, 22-32. This situation is no different than that faced by most U.S.-licensed satellites. Due to the fact that modern DBS satellites depart significantly from the parameters adopted in the original international band plans, proposals for new satellites generally trigger coordination under international rules with at least some neighboring satellites. The Commission routinely licenses satellites pending such coordination. *See, e g.,* Loral Spacecom Corporation, *Order*, DA 03-2624 (Aug. 8, 2003), ¶ 15 ("The Commission has held that it is not necessary to complete international coordination before a satellite system can be authorized to provide service in the United States. [footnote omitted] It is sufficient for purposes of the *DISCO II* framework that coordination has been initiated. . . .")

21 *See* Petition of DIRECTV Enterprises, LLC For a Rulemaking on the Feasibility of Reduced Orbital Spacing in the U.S. Direct Broadcast Satellite Service, RM No. 10804, Sept. 5, 2003 (the "DIRECTV Petition"), *Public Notice*, Report No. SPB-196, December 16, 2003; Comments of SES AMERICOM, Report No. SPB-196, January 23, 2004 ("SES AMERICOM Rulemaking Comments"); and Reply Comments of SES AMERICOM, Report No. SPB-196, February 13, 2004 ("SES AMERICOM Rulemaking Reply Comments").

has explained in detail, current domestic and international rules and procedures already contemplate satellites at reduced spacing, and address all of the issues raised by DIRECTV.[22] In particular, the international coordination requirements serve to protect neighboring satellites, such as DIRECTV's, from interference.[23] Finally, coordination of individual satellites to prevent interference, as prescribed by international rules, leads to the more efficient use of the spectrum than "one-size-fits-all" rules.[24] Initiation of a rulemaking would serve only to delay action on the SES AMERICOM Petition and to delay conclusion of the coordination proceedings.

In the *NOI*, the Commission asked what it can do to accelerate broadband deployment. One answer is simple and clear: grant expeditiously those pending proposals that would make available substantially more satellite orbital and spectrum resources. And one of the fastest ways to increase DBS capacity is to permit operation of satellites at reduced (4.5°) spacing. In addition to facilitating integrated, single-dish, video/broadband service offerings (currently constrained by the lack of available frequencies between 101° W.L. and 119° W.L.), this will have the added benefit of allowing for more efficient use (including for broadband) of the FSS spectrum currently used for delivery of video programming.

The existing domestic and international procedures provide the fastest and most effective route for evaluating and licensing DBS satellites at reduced spacing. The Commission should not attempt to overlay on top of the existing regulatory framework additional rules that could constrain creative spectrum-sharing solutions, and hinder (or discourage altogether) services that are a critical component of broadband service offerings. Instead, the Commission

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22 *See* SES AMERICOM Rulemaking Comments at 5-13, 16-27; SES AMERICOM Rulemaking Reply Comments at 3-10.

23 *See* SES AMERICOM Rulemaking Comments at 8-9; SES AMERICOM Rulemaking Reply Comments at 3-8.

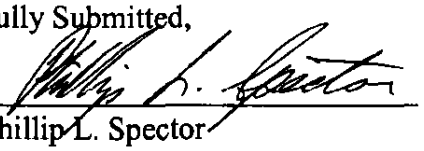
24 *See* SES AMERICOM Rulemaking Comments at 14-15; SES AMERICOM Rulemaking Reply Comments at 16-19.

should actively support ongoing coordination efforts, with a view to permitting maximum use of scarce orbital resources.[25]

V. CONCLUSION

Only satellite technology can be used to reach efficiently every American, no matter how remotely located. Satellite broadband systems are therefore critical to meeting the President's goal of universal affordable access for broadband technology by the year 2007. SES AMERICOM has undertaken a leading role in the satellite industry in this area, and is situated to enhance significantly the Commission's ability to achieve this goal. To finish the job, however, the Commission should streamline and expedite evaluation of proposals that will help reach the President's goal, and resist efforts to encumber such systems with unnecessary regulation. The satellite industry, led by SES AMERICOM, has done its part; the Commission must now do the same.

Respectfully Submitted,

By: 

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[25] In addition, in order to provide satellite broadband services directly to consumers, satellite systems need to operate in frequency bands not shared with terrestrial services. This avoids additional interference to consumer receivers, and the unworkable delays caused by the need for individual site coordination prior to installation of CPE. The Commission has taken significant steps to ensure Ka-band FSS is available for broadband service by removing the terrestrial allocations in the 18.3-18.8 GHz bands. *See Second Order on Reconsideration in* IB Docket No. 98-172, FCC 02-317, rel. Nov. 26, 2002.